

U.S. Patent Application Serial No. 09/787,614  
Response filed September 24, 2004  
Reply to OA dated July 1, 2004

**REMARKS**

Claims 1-19 are pending in this application, with claims 5-12 currently withdrawn from consideration. An amendment to claim 1 is proposed herein. No new matter has been added by this amendment.

**Regarding finality of the Office action.** (See Office action paragraph no. 1)

In the Amendment of April 14, 2004, Applicant noted that claim 18 was not examined in the Office action of November 18, 2003. The Examiner has now examined claim 18. However, since claim 18 was not examined in the first Office action, Applicant believes that it is not proper that the present Office action be made final.

Applicant also noted in the Amendment of April 14, 2004, that claim 13 reads on the elected species, and that this had been stated in the Response dated September 2, 2003. The Examiner has reversed the withdrawal of claim 13 in the present Office action. Under these circumstances, Applicant again submits that it is improper that the present Office action be a final Office action.

Applicant therefore respectfully requests **withdrawal of the finality of the present office action**, in view of the fact that the Examiner did not examine claims 13 and 18 in the first Office Action of November 18, 2003, and that these claims have only been examined once, in the present Office action. Accordingly, Applicant requests entry of the present amendment and reconsideration of the rejections.

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**Claims 1-4 and 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gray et al. (U.S. Patent No. 5,252,253). (Office action paragraph no. 2)**

The rejection is overcome by the amendment to claim 1.

In the rejection, the Examiner again notes the correspondence of formula (I-1) with compounds 1.9-1.11 of the reference, and notes that claim 1 now requires at least two compounds.

The only citation by the Examiner of compounds in Gray et al. of formula (I-2) to (I-5) is the listing of formula 1.4 to 1.8 ( $Q^1 = F, CF_3$  or NCS) in the reference as corresponding to formula (I-3) in the present claims. Formula 1.4 to 1.8 are not specific compounds, but are general formulae by virtue of group R, which can be alkyl or alkoxy, which the Examiner cites as overlapping formula (I-3) in the present claims.

In the amendment to claim 1, the definition of  $Q^1$  in of claim 1 is amended to **delete the CN group**. Applicant submits that the compound represented in claim 1, as amended, is different from that of Figure 1 in Gray et al. and that Gray et al. does not disclose or suggest a compound consistent with the claimed formulae.

Moreover, the Examiner states:

“Although the present claims are not exemplified in the reference, it would have been obvious to those skilled in the art to mix the compounds of formula (1.4-18) with (1.9-1.11) because these compounds have similar liquid crystal properties, which can improve the liquid crystal display devices.”

Applicant notes that the Examiner does not point out any suggestion in Gray et al. for the

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claim limitation of “two or more kinds of compounds,” but appears to be citing a motivation for mixing based on his interpretation of the general art. However, Applicant submits that this stated motivation is unclear. If the compounds “have similar liquid crystal properties,” why would there be any need to mix more than one? Moreover, it is not clear how this would “improve the liquid crystal display devices.”

Applicants submits that Gray et al. and the general art, in fact, do **not** disclose nor suggest the combination of “two or more compounds selected from the general formulas (I-1) to (I-5).”

Moreover, this limitation of claim 1 results in an effect that is clearly **unexpected** over Gray et al. The importance of the claimed combination is shown in the attached Declaration under 37 CFR 1.132, by Kyofumi Takeuchi. As shown by the data presented in the declaration, the composition excluding the compound of (I-1) in which Q<sup>1</sup> is CN, is superior to the composition including the compound having cyanonaphthalene in the parameters of specific resistance and the voltage holding ratio (VHR). By comparison of the “Additional Example” in the declaration, a combination of compounds omitting cyanonaphthalene exemplifying the present invention, to the the “Comparative Additional Examples,” which include the compound having cyanonaphthalene and the compounds of the examples of Gray, the unexpected effects of the present invention can be seen. Specifically, the value of specific resistance is much higher for the “Additional Example” than the value for the “Comparative Examples,” and the value of voltage holding ratio (VHR) is likewise much higher for the “Additional Example” than the value for the “Comparative Examples.” Applicant submits that this effect is clearly unexpected over Gray et al.

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Applicant therefore asserts that claims 1-4 and 14-18, as amended, are not obvious over Gray et al.

**Claim 19 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 18 and 19 of Takehara et al. U.S. Patent No. 6,468,607. (Office action paragraph no. 5)**

The objection is obviated by the filing of a terminal disclaimer over Takehara et al. U.S. Patent No. 6,468,607. The terminal disclaimer papers are filed concurrently with this amendment.

**Claim 13 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitation of the base claim and any intervening claims. (Office action paragraph no. 7)**

Reconsideration of the objection is respectfully requested in view of the amendment to claim 1 and the arguments presented above in regard to the rejection of claim 1.

In view of the aforementioned amendments and accompanying remarks, claims, as amended, are in condition for allowance, which action, at an early date, is requested.


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If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicant's undersigned agent at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, Applicant respectfully petitions for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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PATENT TRADEMARK OFFICE

Enclosures: Declaration under 37 CFR 1.132

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